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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,221	07/02/2003	Oreste J. Lantero	9342-046	7047

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EXAMINER	
TATE, CHRISTOPHER ROBIN	
ART UNIT	**PAPER NUMBER**
1654	

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/613,221	LANTERO ET AL.	
	Examiner	Art Unit	
	Christopher R. Tate	1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 21-23 is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-23 are presented for examination on the merits.

Specification

Specific reference to any earlier filed applications (e.g., Application Nos. 09/835,241 and 08/950,815) should be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No._____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 is rendered vague and indefinite by the overall phrase "A spray-granulated gluconic acid granulate produced by the process of claim 16" because this phrase lacks antecedent basis with respect to the process steps recited in claim 16 - i.e., the method of claim 16 is drawn to an enzymatic method for converting glucose to gluconic acid method, not to a

method of preparing a spray granulated granulate of the obtained gluconic acid. In other words, there is no step within the claim 16 process which would result in the formation of spray granulated granules thereof. Accordingly, it is totally unclear as to what is actually being defined by the claim17 product -by-process limitations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Bonewitz et al. (US 2,804,432) or Bonewitz et al. (US 2,767,146), to name a few.

A spray-granulated gluconic acid granulate is claimed.

Each of the references teach spray-granulated gluconic acid granulates (see entire references).

Therefore, each of the cited references is deemed to anticipate the instant claim above.

With respect to the USC 102 rejections above, please note that "the patentability of a product does not depend upon its method of production. If the product in [a] product-by-process claim is the same as or obvious from a product of the prior art, [then] the claim is unpatentable even though the prior [art] product was made by a different process." In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985) - see, e.g., MPEP 2113.

To hasten prosecution, it is strongly suggested that claim 17 be canceled in response to this Office action.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16 and 18-20 are rejected under 35 U.S.C. 102(b) or 102(e), respectively, as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vroemen et al. (WO95/33631) or Vroemen et al. (US 5,897,995) [please note that US 5,897,995 is the U.S. equivalent of WO95/3363. Therefore, for convenience, US 5,897,995 is referred to below] for the reasons set forth in the previous Office action which are restated below.

A process for enzymatically converting glucose to gluconic acid via adding soluble glucose oxidase (about 25-30 glucose oxidase units) and catalase (at least about 1200 catalase units -see, e.g., claims 1 and 21; or a broad range of catalase units - see, e.g. claim 16) to a soluble glucose solution. Other claims include particular working conditions conventionally employed in the art.

Vroemen et al. teach the conversion of glucose to gluconic acid using soluble glucose oxidase and soluble catalase in a glucose solution which appears to anticipate the instantly claimed invention (see, e.g., abstract, col 3. line 64-col 6, line 9, Examples, and claims), especially since most of the instant claims define the amount of catalase used as being at least 1200 catalase units and, thus, read on all amounts of catalase at or above this level within such a process). However, even if the Vroemen et al. reference does not expressly teach the claimed ranges and/or ratio of glucose oxidase and catalase within their process for converting glucose to gluconic acid and, thus, does not anticipate the claimed invention, the result-effective adjustment in the concentration levels and/or ratio of these two commonly employed enzymes used in converting soluble glucose to gluconic acid, as well as other conventional enzymatic working conditions, are deemed merely matters of judicious selection and routine optimization which is well within the purview of the skilled artisan, especially based on the overall state of the art showing the result-effective variability in the amounts/ratios of these two commonly employed enzymes within such a process so as to achieve optimum conversion of glucose to gluconic acid (see, e.g., prior art cited in previous USC 102 and 103 rejections of record in parent application No. 08/950,815 - e.g., those cited in the Office action of Paper No. 17 therein, mailed 11/23/98).

Please note that the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicants' glucose oxidase and catalase concentrations and/or ratios (based on the units of measure instantly employed for showing the amounts and/or ratios of gluconic acid and catalase - i.e. GOU and CU, respectively) differ and, if so, to what extent, from the discussed reference (which employed different units of measure for these two ingredients within their process - i.e., IU and SU, respectively). Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

Accordingly, the claimed invention as a whole was at least *prima facie* obvious, if not anticipated by the reference, especially in the absence of evidence to the contrary.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vroemen et al. (WO95/33631) or Vroemen et al. (US 5,897,995), in view of Bonewitz et al. (US 2,804,432) or Bonewitz et al. (US 2,767,146).

The Vroemen et al. references are relied upon for the reasons set forth above. Neither of these references expressly teach forming spray-granulated granules of the prepared gluconic acid.

Each of the Bonewitz et al. references beneficially teach preparing granules of spray-granulated gluconic acid for various commercial uses - e.g., as cleaning compounds (see entire references).

It would clearly have been obvious to one of ordinary skill in the art at the time the claimed invention was made to further process the gluconic acid prepared by the Vroemen et al. process into spray-granulated granules so as to provide commercially useful forms thereof - such as beneficially disclosed by each of the Bonewitz et al. references, as discussed above.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

Conclusion

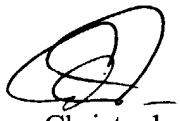
Claims 21-23 are allowable. A process of producing low-dust spray-granulated gluconic acid via the steps recited in instant claims 21-23 are neither taught nor reasonably suggested by the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Tate whose telephone number is (571) 272-0970. The examiner can normally be reached on Mon-Thur, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on (571) 272-0974. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher R. Tate
Primary Examiner
Art Unit 1654